

AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. (Currently Amended) A high-density read-only optical disc including a Lead-In area, a data area, and a Lead-Out area, comprising:

the Lead-In area including a specific area having a bi-phased High Frequency Modulated (HFM) groove and patterns ~~a fixed pattern~~ of straight pits formed along on the basis of the HFM groove such that the same tracking servo operation can be performed over the whole data area of the disc.

2. (Original) The disc as set forth in claim 1, wherein the specific area contains principal information of the high-density read-only optical disc.

3. (Currently Amended) The disc as set forth in claim 1, wherein the specific area is an area that would correspond in a high-density ~~rewritable~~ writable optical disc to a PIC (Permanent Information & Control data) area, for permanently storing principal disc information.

4. (Cancelled)

5. (Currently Amended) The disc as set forth in claim 1, wherein the patterns comprise pairs of mark and space and each of the pairs of the mark and the space ~~[[are]]~~ is repeatedly recorded in a predetermined recording period with a different

unique pit ~~lengths~~ length according to a data value representing the recording period,
the predetermined recording period being associated with the HFM groove.

6. (Original) The disc as set forth in claim 5, wherein sum of pit lengths of each pair of the mark and the space is constant, irrespective of a representative data value of the recording period.

7. (Currently Amended) A method for reproducing data stored in an optical recording medium, comprising the steps of:

a) reading, via a same servo operation as is usable to read data recorded in a user information area, data recorded in a Lead-In area in the form of straight pre-pits having a ~~fixed-pattern~~ patterns and associated with a bi-phased HFM (High Frequency Modulated) groove, wherein the ~~fixed-pattern~~ patterns of the straight pre-pits ~~[[is]]~~ are formed ~~along~~ on the basis of the HFM groove; and

b) reproducing data recorded in the user information area by referring to the read data.

8. – 9. (Cancelled)

10. (Previously Presented) The method as set forth in one of claim 7, wherein the servo operation is a DPD (Differential Phase Detection) method.

11. – 15. (Cancelled)

16. (Currently Amended) An apparatus for reproducing data stored in an optical recording medium, comprising:

a reproducing device adapted to read data recorded in a Lead-In area in the form of straight pre-pits having ~~a fixed-pattern~~ patterns and associated with a bi-phased HFM (High Frequency Modulated) groove, and read data using the same operation as used in the Lead-In area to read data recorded in a user information area in the form of straight pre-pits by referring to the data read from the Lead-In area, wherein the ~~fixed-pattern~~ patterns of the straight pre-pits ~~[[is]]~~ are formed ~~along on the~~ basis of the HFM groove; and

a controller adapted to control the reproducing device.

17. (Previously Presented) The apparatus of claim 16, wherein the reproducing device includes an optical pickup unit configured to read the data recorded in a Lead-In area and read the data recorded in a user information area and a servo unit configured to drive the optical pickup unit.

18. (Previously Presented) The apparatus of claim 17, wherein the servo unit is configured to perform a servo operation by a Differential Phase Detection (DPD) method.

<End of Claims Listing>